CHAFFER V

THK BKACTIONS ACCOMPANYING; GASIFICATION IN THE PRODUCER -• STOIC HIO MMT11U! 11KLAT10NS

Oi) CUUION I>ioxn>w (1.()a, RATIO 01* C TO 0, AND VOLUME OF (lAS OllTAlNKl) KUOM 1 KILOGIIAMMJB C.

CUWON cutnhhu'.H \vilh oxygen, forming carbonic acid or carhun dioxide, according to the equation C + 2 O^COa \vhirh involves, according to the rules of stoichiometry, that l*Ji kilogmmwoH (.1 \viih ttiJ kilogrammes 0 form 44 kilogrammes COa.

This wodi« of calculation is employable for the estimation of the iMjuivahuit quantitioH of mutually reacting substances in nil chemical reactions. It IB, however, particularly so in onlrr it) \vork out dotonmnationB of weight of gases, and these ant usually dono by the inc<thod of: measuring the volumes of the gasen and multiplying the figures obtained by the weight of a unit votunm of Urn gan. Hincjo, however, the volumes of '.'jiht'.s vary with eliange of prc.sK.uro and temperature, the tigurcH for the volumnn inoaHurcid in experiments are always Rrnt ccjrrccted to tho normal baniB of 0° and 760 millimetres, if oiin \vi«lum to cunploy thoir absolute weight in the above-mentioned manner. IL lian boon known for many years that one can cottHulfimhly mmplify the calculations for the mutual of KUHOH, and, thtirefore, also knowledge of the es, if one calculates in volumes of inter-reacting Hul»«lu«n*H in litui of tho weights. With this object in con-RiM|ttoncui nic»ltuuilar formuhu arc employed, which furnish fiitwf, thu raiioH of iitnoutitH of the volumes of the reacting ami ruwiltiiiit Hulmtauwts. In the critical examination of the <iccurfencef4 in technical generation of producer gases, these forum hi* IMVIJ as yet found much too little entry.